



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

T. Loughman & Co Ltd
Moatfield House
Highfield Road
Dartford
Kent
DA1 2LH

26th October 2015
Our Ref: TOHA/15/6487/SS/Rev.1
Your Ref: T5121/15014

Dear Sirs

Bridgewater Road, QEOP

Imported Soil Analysis – Subsoil

We have completed the analysis of the *Subsoil* sample collected from the Bridgewater Road, Queen Elizabeth Olympic Park site and have pleasure reporting our findings.

The purpose of the analysis was to determine the sample's compliance with the requirements of *2.4 Materials Selection – Subsoil* as listed in the T Loughman & Co Ltd Inspection & Test Plan – *Remediation, Bulk Excavation and Fill ITP, Olympic South Park* (ref: 15/014/12 ITP 01). The results for potential contaminants have been assessed against the *Atkins Site-Specific Assessment Criteria (SSACs) – Human Health Separation Layer for Zone PDZ8/CZ8c, Allotments*.

Sampling

The subsoil was examined and sampled at the Bridgewater Road Allotment site, Queen Elizabeth Olympic Park on 12/10/2015 by Tim O'Hare Associates LLP (TOHA). It is understood that the subsoil was originally obtained from Mill House Farm, West Tilbury, Essex.

At the time of TOHA's visit, the subsoil had been placed across the allotment area. Subsoil was sampled from a total of 6 no. trial holes, using a spade and hand-driven soil auger. The locations of each trial hole are indicated on the attached site plan.

The subsoil at each location was consistent in visual appearance and described as:

Yellowish brown (Munsell Colour 10YR 5/6), slightly moist, friable LOAMY SAND with a weakly developed fine granular structure. The soil was moderately stony, containing frequent small to medium sized stones. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

A representative composite sample was formed from these trial holes to undergo laboratory analysis.

Tim O'Hare Associates LLP
Howbery Park Wallingford Oxfordshire OX10 8BA
T:01491 822653 E:info@toha.co.uk
www.toha.co.uk



Plate 1: Imported subsoil



Plate 2: Typical subsoil trial hole, showing marker layer at base of trial hole

ANALYTICAL SCHEDULE

The sample was submitted to the laboratory for a range of physical and chemical analyses in accordance with the requirements of the specification. The following parameters were determined:

- Visual examination to record Munsell colour, moisture status, aerobic state, the presence of any deleterious materials, unusual odours (e.g. petroleum hydrocarbons);
- detailed particle size analysis;
- stone content (>2mm, >20mm, >50mm);
- saturated hydraulic conductivity;
- pH value;
- calcium carbonate;
- electrical conductivity values (water and CaSO_4 extracts);
- exchangeable sodium percentage;
- organic matter content;
- total nitrogen;
- carbon:nitrogen ratio;
- extractable phosphorus, potassium and magnesium;
- phytotoxic contaminants (Cu, Ni, Zn);
- water-soluble boron;
- Limiting values for harm to human health (ref: SSACs).

The results of this process are presented on the attached Certificate of Analysis, and a summary of our findings is provided below.

RESULTS OF ANALYSIS

We have cross-referenced the results against the requirements of 2.4 *Materials Selection – Subsoil – Remediation, Bulk Excavation and Fill ITP, Olympic South Park* (ref: 15/014/12 ITP 01) and the *Site-Specific Assessment Criteria (SSACs) for Zone PDZ8/CZ8c*.

Horticultural Parameters

The sample was fully compliant with the requirements of 2.4 *Materials Selection – Subsoil*.

Chemical Parameters – SSACs

Of the potential contaminants determined, none were recorded at levels that exceeded their respective specified maximum permissible values.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if we can be of further assistance.

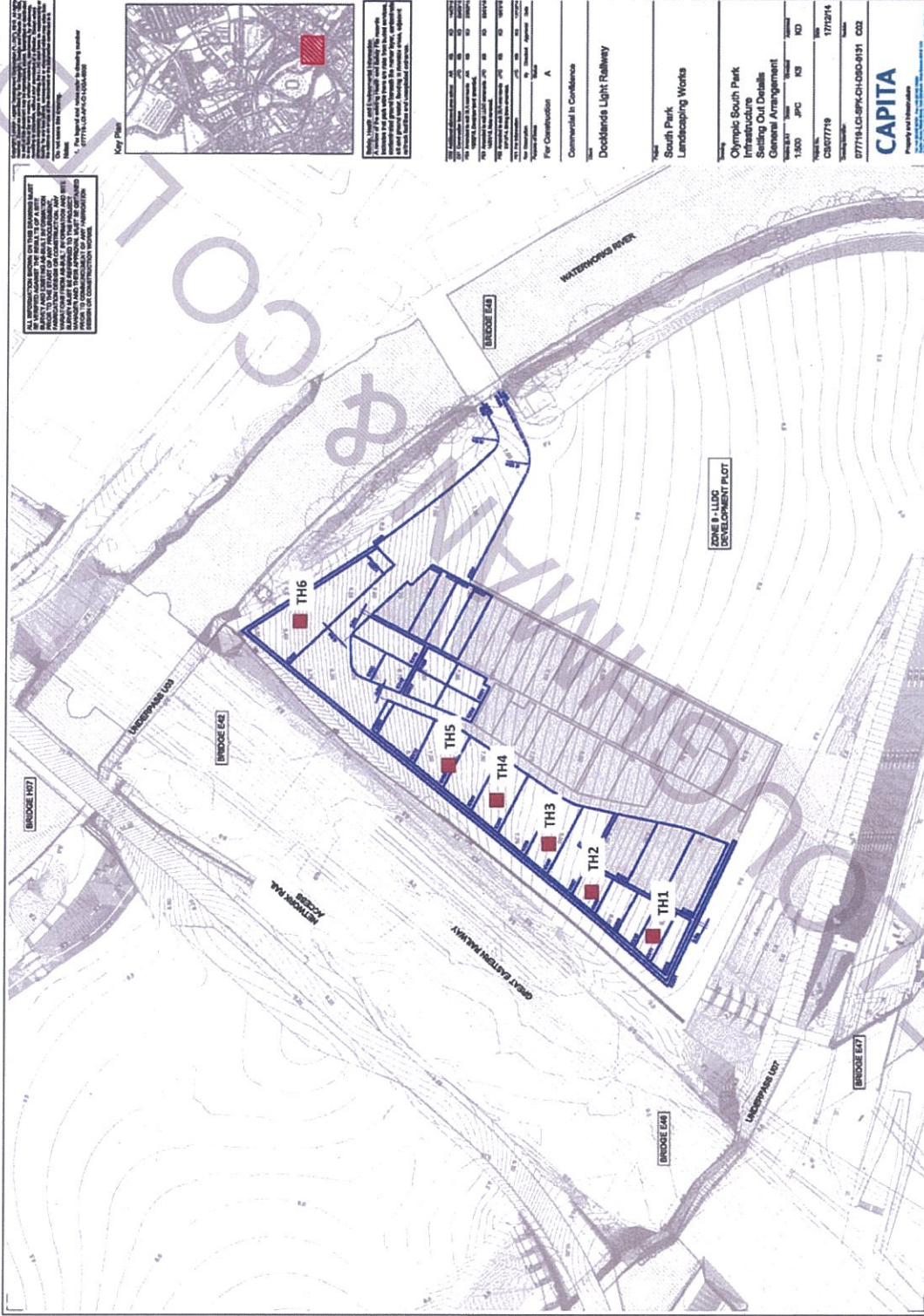
Yours faithfully,

*BSc MSc PhD
Soil Scientist*

*BSc MSc M/SoilSci MBIAC CSci
Principal Consultant*

For & on behalf of Tim O'Hare Associates LLP

THX Approximate Trial Hole location



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	Bridgewater Road
Project:	TOHA/15/6487/SS
Job ref no.:	6487/1
Drawing no.:	Subsoil Validation
Drawing title:	
Date:	Oct '15
Drawn by:	IG
Scale:	NTS
Checked by:	TOH

Tim O'Hare Associates LLP
Horsley Park Wallingford Oxfordshire OX10 8BA
T: 01895 822600 F: 01895 822601
www.timohare.co.uk

